

Product Information



Dynamin (Phospho-Ser⁷⁷⁴) Polyclonal Antibody

Catalog No. 10009785

Supplied as:	100 µl affinity-purified antibody in 10 mM HEPES, pH 7.5, containing 150 mM NaCl, 100 µg/ml BSA, and 50% glycerol.
Host:	Sheep
Antigen:	Phosphopeptide corresponding to amino acid residues surrounding phospho-Ser ⁷⁷⁴ of rat dynamin
Cross Reactivity:	(+) rat dynamin; expected to react with bovine, canine, chicken, human, murine, non-human primate dynamin based on the fact that these species have 100% homology with the amino acid sequence used as antigen.
Stability:	≥1 year at -20°C
Application:	The recommended starting dilution for western blot is 1:1,000.

Dynamin is a member of a group of nerve terminal proteins called dephosphins that regulate synaptic vesicle endocytosis.¹⁻³ Cyclin dependent protein kinase 5 phosphorylates dynamin at Ser⁷⁷⁴ and Ser⁷⁷⁸.⁴ Phosphorylation of these sites on dynamin is thought to play a key role in synaptic vesicle trafficking.

References

1. Cousin, M., Tan, T.C., Robinson, P.J. Protein phosphorylation is required for endocytosis in nerve terminals: potential role for the dephosphins dynamin I and synaptojanin, but not AP180 or amphiphysin. *J. Neurochem* **76**, 105-116 (2001).
2. Graham, M.E., O'Callaghan, D.W., McMahon, H.T., *et al.* Dynamin-dependent and dynamin-independent processes contribute to the regulation of single vesicle release kinetics and quantal size. *Proc Natl Acad Sci USA* **99**, 7124-7129 (2002).
3. Tsuboi, T., Terakawa S., Scalettar, B.A., *et al.* Sweeping model of dynamin activity - Visualization of coupling between exocytosis and endocytosis under an evanescent wave microscope with green fluorescent proteins. *J. Biol. Chem.* **277**, 15957-15961 (2002).
4. Tan, T.C., Valova, V.A., Malladi, C.S., *et al.* Cdk5 is essential for synaptic vesicle endocytosis. Molecular characterization of the family of the N-methyl-D-aspartate receptor subunits. *Nat. Cell Biol.* **5**, 701-710 (2003).

Related Product

Dynamin (Phospho-Ser⁷⁷⁸) Polyclonal Antibody - Cat. No. 10009786

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com